

FORM PTO-1390 (REV. 12-97)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER 7024109PUR48
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371			U.S. APPLICATION NO. (if known) sec 37 PCT 1.5 <b>09/180340</b>
INTERNATIONAL APPLICATION NO. PCT/US97/07663	INTERNATIONAL FILING DATE 05/06/1997 - May 6, 1997	PRIORITY DATE CLAIMED 05/06/1996 - May 6, 1996	
TITLE OF INVENTION STABLE RECOMBINANT YEASTS FOR FERMENTING XYLOSE TO ETHANOL			
APPLICANT(S) FOR DO/EO/US HO, Nancy W. Y. and CHEN, Zheng-Dao			
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:			
<p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).</p> <p>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))</p> <p>a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau):</p> <p>b. <input type="checkbox"/> has been transmitted by the International Bureau.</p> <p>c. <input checked="" type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</p> <p>6. <input type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</p> <p>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))</p> <p>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <input type="checkbox"/> have been transmitted by the International Bureau.</p> <p>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</p> <p>d. <input checked="" type="checkbox"/> have not been made and will not be made.</p> <p>8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).</p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (unsigned)</p> <p>10. <input type="checkbox"/> A translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p>			
Items 11. to 16. below concern document(s) or information included:			
<p>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input type="checkbox"/> A FIRST preliminary amendment.</p> <p><input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</p> <p>14. <input type="checkbox"/> A substitute specification.</p> <p>15. <input type="checkbox"/> A change of power of attorney and/or address letter.</p> <p>16. <input checked="" type="checkbox"/> Other items or information:</p> <p>a. Request</p> <p>b. International Publication</p> <p>c. Response to Invitation to Correct Defects</p> <p>d. PCT/IB/332,304,308</p> <p>e. Notif of Receipt of Demand</p> <p>f. Resp to International Search Report</p> <p>g. Resp to Written Opinion</p> <p>h. International Prelim Exam Report</p> <p>i. Change in address of one of the Applicants</p>			
		<p>Express Mail label number EM577550042US</p> <p>Date of Deposit <b>5 NOVEMBER 1998</b></p> <p>I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37CFR § 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.</p> <p><i>Gonda C. Shelby</i> Signature of person mailing paper or fee</p>	

BEST AVAILABLE COPY

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)		INTERNATIONAL APPLICATION NO. PCT/US97/07663		ATTORNEY'S DOCKET NUMBER 7024109PUR48	
17. <input checked="" type="checkbox"/> The following fees are submitted:				CALCULATIONS / PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):					
Search Report has been prepared by the EPO or JPO ..... \$930.00					
International preliminary examination fee paid to USPTO (37 CFR 1.482) <del>\$720.00</del> <sup>540</sup>					
No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) ..... \$790.00					
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$1070.00					
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) ..... \$98.00					
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$	540 <sup>00</sup>
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	35 - 20 =	15	x \$14.00	\$	210 <sup>00</sup>
Independent claims	7 - 3 =	4	x \$62.00	\$	256
MULTIPLE DEPENDENT CLAIM(S) (if applicable) 1 + \$270.00				\$	210
TOTAL OF ABOVE CALCULATIONS =				\$	1,216 <sup>00</sup>
Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$	
SUBTOTAL =				\$	1,216 <sup>00</sup>
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$	1,216 <sup>00</sup>
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$	
TOTAL FEES ENCLOSED =				\$	1,216 <sup>00</sup>
				Amount to be refunded:	\$
				charged:	\$
a. <input checked="" type="checkbox"/> A check in the amount of \$ 1,216 <sup>00</sup> to cover the above fees is enclosed.					
b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.					
c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 23-3030. A duplicate copy of this sheet is enclosed.					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO:					
Kenneth A. Gandy					
WOODARD, EMHARDT, NAUGHTON, MORIARTY & MCNETT					
Bank One Center/Tower, Suite 3700					
111 Monument Circle					
Indianapolis, Indiana 46204 US					
SIGNATURE Kenneth A. Gandy					
25 MAY 6 - AON 86					
#33,386					
RECEIVED NUMBER					

SCANNED5

BEST AVAILABLE COPY

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PCT application of	)
PURDUE RESEARCH FOUNDATION	) Authorized Officer:
	) Paul F. Urrutia
International Application	)
Number PCT/US97/07663	) Mailing Date
	) 26 June 1997
International Filing Date	)
06 May 1997	) Agent's File
	) Reference:
Title of Invention	) PUR-48:PCT
STABLE RECOMBINANT YEASTS	)
FOR FERMENTING XYLOSE TO	)
ETHANOL	)

RESPONSE TO INVITATION TO CORRECT DEFECTS

Commissioner of Patents and Trademarks  
 Box PCT  
 Washington, D.C. 20231

Attn: RO/US

Dear Sir/Madam:

In response to the Invitation to Correct Defects in the International application mailed 02 June 1997, Applicant submits herewith three duly executed Appointments of Agent and new drawing sheets 1-12. We believe that this application conforms to the requirements of the PCT.

Mailing label number TB861764101US Respectfully submitted

Deposit 27 June 1997

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office" service under 37 CFR § 1.10 on the date indicated and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Signature of person mailing paper or fee

*Kenneth A. Gandy*  
 Kenneth A. Gandy, #33,386  
 Woodard, Emhardt, Naughton,  
 Moriarty & McNett  
 Bank One Center/Tower, Suite 3700  
 111 Monument Circle  
 Indianapolis, Indiana 46204 US  
 (317) 634-3456

Enclosures: 3 Appts. Of Agent and new drawing sheets 1-12

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## PATENT COOPERATION TREATY

### Appointment of Agent or Common Representative

The undersigned applicant, PURDUE RESEARCH FOUNDATION, hereby appoints Harold R. Woodard, No. 16,214; C. David Emhardt, No. 18,483; Joseph A. Naughton, Jr., No. 19,814; John V. Moriarty, No. 26,207; John C. McNett, No. 25,533; Thomas Q. Henry, No. 28,309; James M. Durlacher, No. 28,840; Charles R. Reeves, No. 28,750; Vincent O. Wagner, No. 29,596; Steve Zlatos, No. 30,123; Spiro Bereveskos, No. 30,821; William F. Bahret, No. 31,087; Clifford W. Browning, No. 32,201; R. Randall Frisk, No. 32,221; Daniel J. Lueders, No. 32,581; Michael D. Beck, No. 32,722; Kenneth A. Gandy, No. 33,386; Timothy N. Thomas, No. 35,714; Kerry P. Sisselman, No. 37,237; Kurt N. Jones, No. 37,996; John H. Allie, No. 39,088; Jeffrey A. Michael, No. 37,394; Deborah R. Beck, No. 37,370; Holiday W. Banta, No. 40,311; Troy J. Cole, No. 35,102; L. Scott Paynter, No. 39,797; Lisa A. Hiday, No. 40,036 and James L. Rowe, No. 18,448, all of the same address and who are members of the Bar of the State of Indiana, constituting the firm of Woodard, Emhardt, Naughton, Moriarty & McNett, Bank One Center/Tower, Suite 3700, 111 Monument Circle, Indianapolis, Indiana 46204 United States of America

☒ as agent    ☐ as common representative

to act on its behalf before the competent International Authorities in connection with the international application concerning STABLE RECOMBINANT YEASTS FOR FERMENTING XYLOSE TO ETHANOL, Agent's File Reference PUR-48:PCT, International Application Number unknown at this time, filed with the United States receiving office and to receive payments on its behalf.

(Place) West Lafayette, IN 47907 USA (Date) May 15, 1997

PURDUE RESEARCH FOUNDATION

  
Bruce PERSHING

Investment Officer and Secretary

## PATENT COOPERATION TREATY

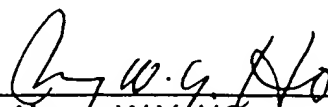
### Appointment of Agent or Common Representative

The undersigned applicant, Nancy W.Y. HO, hereby appoints Harold R. Woodard, No. 16,214; C. David Emhardt, No. 18,483; Joseph A. Naughton, Jr., No. 19,814; John V. Moriarty, No. 26,207; John C. McNett, No. 25,533; Thomas Q. Henry, No. 28,309; James M. Durlacher, No. 28,840; Charles R. Reeves, No. 28,750; Vincent O. Wagner, No. 29,596; Steve Zlatos, No. 30,123; Spiro Bereveskos, No. 30,821; William F. Bahret, No. 31,087; Clifford W. Browning, No. 32,201; R. Randall Frisk, No. 32,221; Daniel J. Lueders, No. 32,581; Michael D. Beck, No. 32,722; Kenneth A. Gandy, No. 33,386; Timothy N. Thomas, No. 35,714; Kerry P. Sisselman, No. 37,237; Kurt N. Jones, No. 37,996; John H. Allie, No. 39,088; Jeffrey A. Michael, No. 37,394; Deborah R. Beck, No. 37,370; Holiday W. Banta, No. 40,311; Troy J. Cole, No. 35,102; L. Scott Paynter, No. 39,797; Lisa A. Hiday, No. 40,036 and James L. Rowe, No. 18,448, all of the same address and who are members of the Bar of the State of Indiana, constituting the firm of Woodard, Emhardt, Naughton, Moriarty & McNett, Bank One Center/Tower, Suite 3700, 111 Monument Circle, Indianapolis, Indiana 46204 United States of America

☒ as agent    ☐ as common representative

to act on his/her behalf before the competent International Authorities in connection with the international application concerning STABLE RECOMBINANT YEASTS FOR FERMENTING XYLOSE TO ETHANOL, Agent's File Reference PUR-48:PCT, International Application Number unknown at this time, filed with the United States receiving office and to receive payments on his/her behalf.

(Place) West Lafayette, IN 47907 USA (Date) May 15, 1997

  
Name: Nancy W.Y. HO

## PATENT COOPERATION TREATY

### Appointment of Agent or Common Representative

The undersigned applicant, Zheng-Dao CHEN, hereby appoints Harold R. Woodard, No. 16,214; C. David Emhardt, No. 18,483; Joseph A. Naughton, Jr., No. 19,814; John V. Moriarty, No. 26,207; John C. McNett, No. 25,533; Thomas Q. Henry, No. 28,309; James M. Durlacher, No. 28,840; Charles R. Reeves, No. 28,750; Vincent O. Wagner, No. 29,596; Steve Zlatos, No. 30,123; Spiro Bereveskos, No. 30,821; William F. Bahret, No. 31,087; Clifford W. Browning, No. 32,201; R. Randall Frisk, No. 32,221; Daniel J. Lueders, No. 32,581; Michael D. Beck, No. 32,722; Kenneth A. Gandy, No. 33,386; Timothy N. Thomas, No. 35,714; Kerry P. Sisselman, No. 37,237; Kurt N. Jones, No. 37,996; John H. Allie, No. 39,088; Jeffrey A. Michael, No. 37,394; Deborah R. Beck, No. 37,370; Holiday W. Banta, No. 40,311; Troy J. Cole, No. 35,102; L. Scott Paynter, No. 39,797; Lisa A. Hiday, No. 40,036 and James L. Rowe, No. 18,448, all of the same address and who are members of the Bar of the State of Indiana, constituting the firm of Woodard, Emhardt, Naughton, Moriarty & McNett, Bank One Center/Tower, Suite 3700, 111 Monument Circle, Indianapolis, Indiana 46204 United States of America

☒ [X] as agent    ☐ [ ] as common representative

to act on his/her behalf before the competent International Authorities in connection with the international application concerning STABLE RECOMBINANT YEASTS FOR FERMENTING XYLOSE TO ETHANOL, Agent's File Reference PUR-48:PCT, International Application Number unknown at this time, filed with the United States receiving office and to receive payments on his/her behalf.

(Place) West Lafayette, IN 47907 USA (Date) ✓ May 15, 1997

Zheng-Dao Chen

Name: Zheng-Dao CHEN

IN THE INTERNATIONAL BUREAU OF WIPO

In re PCT application of	)
PURDUE RESEARCH FOUNDATION,	)
etal	)
	)
International Application	)
Number PCT/US97/07763	) Mailing Date
	) 29 October 1998
International Filing Date	)
6 May 1997	) Agent's File
	) Reference:
Title of Invention	) PUR-48:PCT
STABLE RECOMBINANT YEASTS	)
FOR FERMENTING XYLOSE TO	)
ETHANOL	)

CHANGE IN THE ADDRESS OF ONE OF THE APPLICANTS

The International Bureau  
WIPO  
34, chemin des Colombettes  
1211 Geneva 20  
Switzerland

Dear Sir/Madam:

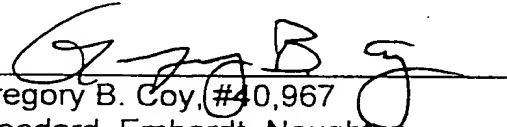
Enclosed please find a new page one of the Request, reflecting a change in the address of one of the Applicants as follows:

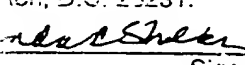
PURDUE RESEARCH FOUNDATION  
Office of Technology Transfer  
1063 Hovde Hall  
West Lafayette, Indiana 47907 US

Please make this change on all appropriate documents and notify all of the necessary offices. We are forwarding a copy of this letter and page one of the Request to the Receiving Office.

Respectfully submitted

By

  
Gregory B. Coy, #40,967  
Woodard, Emhardt, Naughton,  
Moriarty & McNett  
Bank One Center/Tower, Suite 3700  
111 Monument Circle  
Indianapolis, Indiana 46204 US  
(317) 634-3456

  
Signature of person mailing paper or fee

#27622

cc: RO/US

Express Mail label number EM 577549659US  
Deposit 29 OCTOBER 1998  
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Patent" service under 37CFR § 1.10 on the date indicated and is addressed to the Assistant Commissioner for Patents, Patent, D.C. 20531.

IN THE INTERNATIONAL BUREAU OF WIPO

In re PCT application of	)
PURDUE RESEARCH FOUNDATION	) Authorized Officer:
	) Gabriele E. Bugaisky
International Application	)
Number PCT/US97/07663	) Mailing Date
	) 15 September 1997
International Filing Date	)
06 May 1997	) Agent's File
	) Reference:
Title of Invention	) PUR-48:PCT
STABLE RECOMBINANT YEASTS	)
FOR FERMENTING XYLOSE TO	)
ETHANOL	)

RESPONSE TO THE INTERNATIONAL SEARCH REPORT

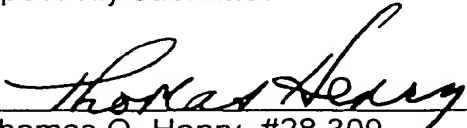
The International Bureau  
WIPO  
34, chemin des Colombettes  
1211 Geneva 20  
Switzerland

Dear Sir/Madam:

In response to the International Search Report mailed 28 July 1997,  
regarding the above-referenced PCT Patent Application, Applicant does  
not wish to make any amendments at this time.

Respectfully submitted

By

  
Thomas Q. Henry, #28,309  
Woodard, Emhardt, Naughton,  
Moriarty & McNett  
Bank One Center/Tower, Suite 3700  
111 Monument Circle  
Indianapolis, Indiana 46204 US  
(317) 634-3456